Would oil shale require coal-fired plants?

By Joe Bauman Deseret Morning News
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Although opponents of oil shale claim large-scale development to produce 1.2 million barrels a day would require a dozen new coal-fired power plants, Utah proponents say that would not be the case with other methods.

The Western Colorado Congress issued a report in June stating that proposed large-scale oil-shale development in Colorado could require construction of a dozen coal-fired power plants. Electricity from the plants would be used to heat the shale to extract oil. It's a process promoted by Shell Oil, according to the Congress' Cathy Kay.

However, Salt Lake City-based energy consultant James W. Bunger said last week that the Shell process "is the worst-case scenario."

"Nobody else is talking about using electricity to heat the ore," Bunger said. "Everybody else is talking about using some kind of natural-gas fuel or the residual carbon (from oil shale) to heat the oil."

The latter may have "emission issues" of its own, he said, but at least it avoids the power loss of the electricity method.

His comments came in an interview Aug. 20 after he and former Rep. Jim Hansen, R-Utah, who is affiliated with Oil Shale Exploration Co., met with the Deseret Morning News editorial board.

Hansen said that a few years ago, an estimate for producing shale oil was $38 a barrel. That has fallen to about $34 a barrel, he said. The current delivery price for crude oil is about $70 a barrel.

Bunger said oil-shale costs are probably in the range of $30 or $40 a barrel.

He added, however, that congressional roadblocks threaten to make investors unwilling to get involved in the projects. If measures sponsored by anti-oil-shale interests in Congress pass, he said, "there isn't a prudent investor in the world, Shell included, that's going to try to buck that trend."

Yet if oil shale could be developed, the United States' proven reserve of oil could in theory go from 20 billion barrels to 400 billion barrels. "We would be the number-one nation in the world" in oil reserves, he said.

But Kay said oil-shale development brings environmental concerns. While some companies are looking at methods to extract oil from oil shale other than heating with

electricity, they are not detailing their proprietary secrets. Even if little electricity is used, the projects will need a lot of water. And "we've got very little water in the Colorado River," after satisfying other needs and legal requirements to Lower Basin states, she said.

"If we're just going to have enormous growth in the area," she added, then water will be needed.

Hansen's group said that Utah, Colorado and Wyoming may have as much recoverable oil in oil shale as Saudi Arabia has in crude. Kay said the Colorado oil-shale formations are the richest in the three states. "Those in Utah and Wyoming are much leaner."

Once oil is extracted from the rocks, it must have additional refining before it can be used, and that would take more water and energy, she said.

The United States uses 21 million barrels of oil a day, Kay added. With oil shale booming, "it could take us up to 2035 just to get 1 million barrels a day -- if there is enough water and energy." E-mail: bau@desnews.com